

REMARKS

Claims 1-25 are pending. Claims 1-9, 13-18, and 22 are rejected. Claim 1 has been amended; no new matter has been added. Applicants respectfully request reconsideration of the rejections set forth in the Office Action dated May 5, 2005 in light of the preceding amendments and following remarks.

In the Claims

Independent claim 1 has been amended to clarify operation of the transcoding rate control. Support for the amendment can be found throughout the Specification, and in particular, on pages 6-7 and 9-14, for example.

In the Specification

The Specification has been amended to correct informalities cited by the Examiner.

Rejections Under 35 U.S.C. §102/103

Claims 1-9, 13-18 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiyama (2001/0008544).

Independent claim 1 has been amended and now recites a “transcoder rate control ... configured to monitor video data in said frame buffer” The Office Action previously used buffers 26 and 37 to teach a frame buffer as recited, and used transcoder rate controller 3 to teach a transcoder rate control as recited. The transcoder rate controller 3 of Ishiyama does not monitor video data in frame buffers 26 or 37.

Nor does Ishiyama provide any suggestion or motivation to monitor the frame buffers with his transcoder rate controller. To the contrary, the frame buffers 26 or 37 store decoded video data (see pars. 75 and 86) and are solely employed to save picture signals for an adder 25 for motion compensated video reconstruction. Ishiyama is primarily concerned with changing compressed formats (with minimal time delay). To the extent that the outgoing format uses more/less bits than the incoming format, he alters the bit rate of the outgoing compressed video. To do so, he monitors the incoming compressed bit rate in input buffer 21 (which stores

compressed video in format 1), monitors the outgoing compressed bit rate in output buffer 40 (which stores re-compressed video in format 2), and changes quantization step size based on the compressed bit rate differences.

Ishiyama does not remotely suggest monitoring the frame buffers 26 or 37 for transcoding rate control, none of his figures or embodiments show this, and this would not be obvious in view of Ishiyama since it would add extra complexity and processing delay to monitor decoded data in the frame buffers 26 or 37, which teaches against Ishiyama's goal of minimal time delay.

Independent claim 9, which was not amended, recites "computing a quantizer scale, wherein the rate reduction factor and the quantizer scale are computed using vbv buffer and frame buffer information". As mentioned above, transcoder rate controller 3 of Ishiyama does not monitor video data in frame buffers 26 or 37. In the Response to Arguments on page 2 of the Office Action, the Examiner points to paragraphs 100-103 and argues that these paragraphs "disclose outputting data from the frame buffers for calculating code volume", which is then "used to calculate rate reduction". However, paragraphs 100-103 state that quantization step controller 71 calculates the code volume using input buffer information 107. Paragraph 91 clearly states that input buffer information 107 comes from input buffer 21 - and not the frame buffer 26 as the Office Action asserts.

Independent claims 13, 18 and 22 are allowable for reasons similar to those described above.

For at least these reasons, Ishiyama does not teach or suggest independent claims 1, 9, 13, 18 and 22 and the independent claims are allowable.

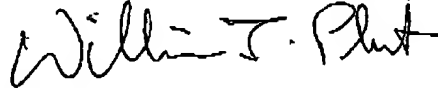
Dependent claims 2-8, 10-12, and 14-17 each depend directly from independent claims 1, 9, and 13, respectively, and are therefore respectfully submitted to be patentable over Ishiyama for at least the reasons set forth above with respect to the independent claims. Further, the dependent claims recite additional elements which when taken in the context of the claimed invention further patentably distinguish the art of record.

Withdrawal of the rejection under 35 USC §103(a) is therefore respectfully requested.

Claims 10-12, 19-21, and 23-25 were objected to but allowable if amended to incorporate base claim and intervening claim limitations. The allowability of claims 10-12, 19-21, and 23-25 is gratefully acknowledged, but all claims are believed allowable for the reasons set forth above.

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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